

CLAIMS

What is claimed is:

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1. A display assembly for an electronic device comprising:
a display device;
a digitizer comprising a layer of conductive paste disposed above
a digitizing element; and
a single-piece top cover enclosing said display device and said
10 digitizer and operable to allow mechanical transfer of external pressure to
cause said layer of conductive paste to contact and activate said digitizing
element.
2. The display assembly of Claim 1, wherein said single-piece top
15 cover comprises a flexible thermoplastic outer film having a three-dimensional
top surface.
3. The display assembly of Claim 2, wherein said single-piece top
cover further comprises a supporting structure that is coupled to said
20 transparent flexible thermoplastic outer film.
4. The display assembly of Claim 1, wherein said single-piece top
cover is free of any steps, openings, or indentations.

5. The display assembly of Claim 1, wherein said digitizer further comprises a plurality of electrodes and traces operable to register a point of contact when said conductive paste makes contact with said digitizing element.

6. The display assembly of Claim 1, wherein said single-piece top cover further comprises a decorative border constructed therein using an in mold decoration process.

7. The display assembly of Claim 1, wherein a decorative border is disposed directly beneath said single-piece top cover and above said digitizer.

8. The display assembly of Claim 7, wherein said digitizer comprises electrical traces and circuits along a periphery that are hidden by said decorative border.

9. The display assembly of Claim 1, wherein said single-piece top cover has indentations to indicate button functions.

10. A display for an electronic device comprising:
a display mechanism;

a single-piece cover that is bezel-less and is disposed over a top surface of said display mechanism and operable to allow mechanical transfer of pressure; and

a resistive digitizer mechanism disposed beneath said cover and,
5 responsive to said mechanical transfer of said cover, operable for registering a contact point on said cover.

11. The display assembly of Claim 10, further comprising a supporting structure and wherein said single-piece cover is a transparent flexible
10 thermoplastic outer film having a three-dimensional top surface coupled to said supporting structure.

12 The display assembly of Claim 10, wherein said resistive digitizer mechanism further comprises a digitizing element disposed beneath a layer of
15 flexible conductive paste.

13. The display assembly of Claim 12, wherein said single-piece cover has sufficient deflection under external pressure to cause said layer of flexible conductive paste to contact and activate said resistive digitizer
20 mechanism.

14. The display assembly of Claim 10, wherein said single-piece cover is free of any steps, openings, or indentations.

15. The display assembly of Claim 10, wherein said single-piece cover further comprises a decorative border constructed therein using an in mold decoration process.

16. The display assembly of Claim 10, wherein a decorative border is disposed directly beneath said single-piece cover and above said resistive digitizer mechanism.

17. The display assembly of Claim 16, wherein said resistive digitizer mechanism comprises electrical traces and circuits along a periphery that are hidden by said decorative border.

18. The display assembly of Claim 10, wherein said single-piece cover has indentations to indicate button functions.

19. A display assembly for an electronic device comprising:
a display mechanism;
a back cover;
a transparent single-piece cover having a bezel-less and three-dimensional top surface disposed over a top surface of said display mechanism; and

a resistive digitizer mechanism disposed beneath said transparent single-piece cover and operable for registering a contact point on said transparent single-piece cover.

5 20. The display assembly of Claim 19, wherein said transparent single-piece cover further comprises a transparent flexible thermoplastic outer film free of any steps, openings, or indentations and coupled to a supporting structure.

10 21. The display assembly of Claim 19, wherein said transparent single-piece cover has sufficient deflection under external pressure to activate said resistive digitizer mechanism.

15 22. The display assembly of Claim 19, wherein said transparent single-piece cover further comprises a decorative border constructed using an in mold decoration process.

20 23. The display assembly of Claim 19, wherein a decorative border is disposed directly beneath said transparent single-piece cover and above said resistive digitizer mechanism.

24. The display assembly of Claim 23, wherein said resistive digitizer mechanism comprises electrical traces and circuits along a periphery that are hidden by said decorative border.

5 25. The display assembly of Claim 19, wherein said transparent
single-piece cover has indentations to indicate button functions.

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